What is claimed is:

1. A method for determining the proportion of differing particle types in a mixture, comprising:

(i) feeding a mixture comprising at least two particle types of non-cohesive particles, each particle type having at least one optical property and/or shape differing from another particle type, to a path inclined at an angle sufficient to enable the particles to descend along the path;

(ii) illuminating the particles along the inclined path;

(iii) collecting reflective-light images of the illuminated particles; and

(iv) calculating the proportion of at least one particle type based on data from the reflective light images indicative of the at least one differing optical property and/or shape.

2. The method of claim 1, wherein the at least one optical property is at least one of reflectance, luminescence and variations thereof at visible, ultraviolet and infrared wavelengths.

3. The method of claim 2 further comprising calculating at least one dimensional property.

4. The method of claim 3, wherein the at least one dimensional property is at least one of longest dimension, shortest dimension, area and perimeter.

5. The method of claim 1, wherein the inclined path is about 60° or less from horizontal.

6. The method of claim 1, wherein the reflective-light images are collected at about perpendicular to the inclined path.

7. The method of claim 1, wherein the feeding comprises disposing the particles near an exit end of a feeder from which the particles are fed to the inclined path, and wherein the inclined path comprises an inlet end located adjacent to and below the feeding exit end.

8. The method of claim 1, wherein less than 25% of the particles on the inclined path are touching another particle in the reflective-light images.

9. The method of claim 8, wherein less than 10% of the particles on the inclined path are touching another particle in the reflective-light images.

10. The method of claim 9, wherein less than 2% of the particles on the inclined path are touching another particle in the reflective-light images.

11. The method of claim 3, wherein the non-cohesive particles are non-spheroidal and at least 80% of the particles have a bounce angle of 10 degrees or less.

12. The method of claim 11, wherein at least 90% of the particles have a bounce angle of 10 degrees or less.

13. The method of claim 11, wherein at least 95% of the particles have a bounce angle of 10 degrees or less.

14. The method of claim 11, wherein the feeding comprises disposing the particles near an exit end of a feeder from which the particles are fed to the inclined path, and wherein the inclined path comprises an inlet end located adjacent to and below the feeding exit end so as to define a gap between the exit end and the inlet end.

15. The method of claim 14, wherein the gap has a length which is equal to or less than the shortest dimension of the particles [to be measured].

16. The method of claim 1, wherein the mixture of non-cohesive particles comprises particles substantially cylindrical in shape.

17. The method of claim 1, wherein the mixture of non-cohesive particles comprises particles having a shape substantially cylindrical with a circular cross-section.

18. The method of claim 1, wherein the mixture of non-cohesive particles comprises seed.

19. The method of claim 1, wherein the mixture of non-cohesive particles comprises particles comprising at least one agriculturally active material.

20. The method of claim 1, wherein the mixture of non-cohesive particles comprises particles comprising at least one crop protection agent.

21. The method of claim 1, wherein inert gas is blown across a surface of the inclined path.

22. An apparatus for determining the proportion of particles of differing particle types in a mixture comprising:

(i) a particle feeder having an exit end;

(ii) an inclined path having an upper inlet end located adjacent to and below the exit end of the feeder to enable descent of non-cohesive particles down the inclined path;

(iii) a source of illumination oriented with respect to the inclined path so as to enable top-illumination of the particles as they descend down the inclined path;

(iv) an image receiver oriented with respect to the inclined path so as to enable collection of reflective-light images of the particles as they descend down the inclined path; and

(v) a composition calculator which converts reflective-light image signals received from the image receiver into data indicative of at least one proportion of particle types in the mixture based on at least one optical property and/or shape of the particles.

23. The apparatus of claim 22 wherein the image receiver comprises a color camera.